

In the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-15 (canceled)

Claim 16 (withdrawn) Cell line IA-2, 96-3-1, deposit number DSM ACC 2365, producing a monoclonal antibody binding specifically to the cytoplasmic domain IA-2ic of human islet cell antigen IA-2.

Claim 17 (withdrawn) A monoclonal antibody produced from cell line IA-2, 96-3-1, deposit number DSM ACC2365, said antibody binding specifically to the cytoplasmic domain IA-2ic of islet cell antigen IA-2.

Claim 18 (currently amended) A human monoclonal antibody that binds specifically to islet cell antigen IA-2 in a manner equivalent to that of an antibody from cell line IA-2, 96-3-1, deposit number DSM ACC2365.

Claim 19 (previously presented) The antibody of claim 18, wherein said antibody belongs to the immunoglobulin class IgG.

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Claim 20 (previously presented) The antibody of claim 19, wherein said antibody belongs to the immunoglobulin subclass IgG1.

Claim 21 (currently amended) A method for producing a human monoclonal antibody that binds specifically to islet cell antigen IA-2, said method comprising:
(a) isolating peripheral mononuclear cells (PBMNC) from the blood of a human donor having a high serum antibody titre of IA-2,
(b) enriching the relevant B cell subpopulation from step (a) by isolating membrane IgG-positive B cells,
(c) immortalizing the isolated membrane IgG-positive B cell subpopulation from step (b),
(d) culturing the immortalized cells from step (c) and testing for the presence of antibody that binds

specifically to islet cell antigen IA-2 in the culture supernatant,

- (e) cloning cells from step (d) which produce antibody that binds specifically to islet cell antigen IA-2 in the presence of feeder cells which contain no cytotoxic T lymphocytes, and
- (f) isolating antibody that binds specifically to islet cell antigen IA-2.

Claim 22 (withdrawn)

A method for detecting an antibody that binds specifically to islet cell antigen IA-2 or IA-2ic in a sample suspected of containing said antibody, said method comprising:

- (a) contacting said sample with a binding partner comprising an IA-2 or IA-2ic antigen, thereby forming an immune complex, said binding partner bound directly or indirectly to a solid phase,
- (b) determining said antibody by contacting said immune complex with a receptor comprising a complex of an antibody that binds specifically to islet cell antigen IA-2ic and a detectable label,
- (c) detecting the presence or amount of said label as a measure of said antibody in said sample.

Claim 23 (withdrawn)

The method of claim 22 wherein the antibody comprising said complex comprising said receptor binds specifically to islet cell antigen IA-2 in a manner equivalent to that of an antibody from cell line IA-2, 96-3-1, deposit number DSM ACC2365.

Claim 24 (withdrawn)

A method for isolating an islet cell antigen IA-2 from a sample suspected of containing said antigen, said method comprising:

- (a) contacting said sample with a monoclonal antibody that specifically binds to IA-2, said antibody bound directly or indirectly to a solid phase, thereby forming an immune complex.
- (b) separating the immune complex from the solid phase, and
- (c) cleaving the immune complex and isolating said antigen.

Claim 25 (withdrawn)

The method of claims 24 wherein said antibody binds specifically to islet cell antigen IA-2 in a manner equivalent to that of an antibody from cell line IA-2, 96-3-1, deposit number DSM ACC2365.

Claim 26 (withdrawn)

A method for producing an anti-idiotypic antibody directed against an antibody binding specifically to the cytoplasmic domain IA-2ic of human islet cell antigen IA-2 comprising:

- (a) immunizing an animal with an antibody binding specifically to the cytoplasmic domain IA-2ic of human islet cell antigen IA-2,
- (b) immortalizing spleen cells from said immunized animal,
- (c) culturing the immortalized cell from step (b) and testing for the presence of anti-idiotypic antibody directed against an antibody binding specifically to the cytoplasmic domain IA-2ic of human islet cell antigen IA-2 in the culture supernatant,
- (d) cloning cells from step (c) which produce anti-idiotypic antibody directed against an antibody binding specifically to the cytoplasmic domain IA-2ic of human islet cell antigen IA-2, and
- (e) isolating anti-idiotypic antibody directed against an antibody binding specifically to the cytoplasmic domain IA-2ic of human islet cell antigen IA-2.

Claim 27 (withdrawn)

The method of claim 26 wherein said antibody binding specifically to the cytoplasmic domain IA-2ic of human islet cell antigen IA-2 binds specifically to islet cell antigen IA-2 in a manner equivalent to that of an antibody from cell line IA-2, 96-3-1, deposit number DSM ACC2365.

Claim 28 (new)

A human monoclonal antibody that binds specifically to islet cell antigen IA-2, wherein said monoclonal antibody is produced by the method of claim 21.